NPDES PERMIT QUALITY REVIEW

STATE OF HAWAII

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EPA Region 9
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Contents

I. EXECUTIVE SUMMARY

EPA Region 9's Hawaii National Pollutant Discharge Elimination System (NPDES) Permit Quality Review (PQR) found that permits issued in the state were generally of excellent quality and appropriately implemented applicable federal and state regulations. In this PQR, EPA focused on several national priority areas, including nutrients, pesticides, pretreatment, and stormwater. EPA also reviewed regional priority areas, including reasonable potential analysis, enforceability of permits, and provisions for low impact development. The PQR examined 10 recently reissued permits, including 3 permits for publicly-owned treatment works, 5 permits for various industrial facilities, 1 general permit, and 1 phase I MS4 permit. The permits reviewed implement applicable effluent limitation guidelines and water quality standards as effluent limits, and include appropriate monitoring requirements to assess compliance with these limits.

The PQR recognizes the many state-specific challenges faced by the State of Hawaii, including the implementation of stringent numeric nutrient water quality standards and the lengthy administrative process to reissue general permits. Although permit issuance experienced significant delays in past years, the development of consistent approaches to address permit quality concerns has improved State efficiency in reissuing permits, resulting in a significant increase in the number of effective permits and reducing permit backlogs.

The State has made significant improvements in permit quality over the last few years as permit practices have changed from:

- carrying over limits with minimal/lack of basis, to establishing water quality-based effluent limitations (WQBELs) based on consistent reasonable potential analyses,
- not incorporating TMDL wasteload allocations (WLAs), to developing an implementation approach to translate difficult WLAs into enforceable limits,
- granting poorly documented zones of mixing to assimilate nutrient discharges, to developing a consistent approach to incorporate available assimilative capacity/dilution credits into enforceable WQBELs, and
- requiring only monitoring requirements in some cases for chronic toxicity, to including chronic toxicity limits based on the Test of Significant Toxicity, or TST.

The State has also adopted multiple rule revisions to increase permit development flexibility (i.e. compliance schedules, intake credits) and has developed standardized permit templates and an electronic permitting database.

Although permits reviewed in this PQR commonly conformed to national requirements, we identified several concerns, principally with fact sheet documentation. We believe these concerns can be best resolved if the Hawaii State Department of Health provides policy clarification and training concerning permitting requirements. Based on this PQR, EPA is recommending modifications to the permit template and other permitting policies and guidance. Primarily, the State should update standard conditions to be consistent with federal requirements, and standardize approaches and provide permit writer training regarding compliance schedules, antibacksliding, and BPJ-based limitations.

In addition to the items listed above, the report provides an overview of the Hawaii NPDES permitting program and identifies areas where EPA and the Hawaii State Department of Health can work together to continue to strengthen permit language and documentation in State NPDES permits.

II. PQR BACKGROUND

National Pollutant Discharge Elimination System (NPDES) Permit Quality Reviews (PQRs) evaluate a select set of NPDES permits to determine whether permits are developed in a manner consistent with applicable requirements established in the Clean Water Act (CWA) and NPDES regulations. Through this review mechanism, EPA promotes national consistency and identifies both successes in implementation of the NPDES program and opportunities for improvement in the development of NPDES permits.

Hawaii was authorized to issue NPDES permits pursuant to the Clean Water Act in 1974. NPDES permits in Hawaii are issued by the Hawaii State Department of Health (HDOH), Clean Water Branch. The Clean Water Branch is also responsible for developing permitting policies and procedures.

EPA Region 9 reviewed Hawaii's NPDES program in the *2000 NPDES Program Implementation Review, Hawaii Department of Health*. Subsequently, EPA's Office of Wastewater Management, Water Permits Division conducted a limited review of Hawaii's program as part of the *2008 Regional NPDES Program Review, EPA Region 9*.

This PQR includes both core permit reviews and special focus area reviews. The core permit reviews focused on permit quality, including review of the permit application, permit, fact sheet, correspondence, documentation, and administrative process. The core permit reviews also focused on national topic areas, including nutrients, pesticide general permits, pretreatment, and municipal stormwater. Additionally, EPA Region 9 selected special focus areas for review, including reasonable potential, enforceability of permits, and low impact development provisions of stormwater permits.

The core review focused on evaluation of aspects identified nationally as the Central Tenets of the NPDES Permitting Program. Reviewers completed the core review by examining selected permits and supporting documentation, assessing these materials using standard PQR tools (e.g., checklists), and talking with permit writers regarding technical questions related to the permit development process. For this PQR, representatives from EPA conducted an on-site visit to HDOH's office in Honolulu, Hawaii in June 2014. Discussions between EPA and the State also addressed program progress and concerns, the permitting process, relative responsibilities, organization, and staffing.

EPA selected a variety of permits (major/minor and facility type) issued in the past 2-3 years to review, including 8 recently reissued individual permits, one general permit, and one Phase I MS4 permit. Of the 8 individual permits reviewed, two are for major publicly-owned treatment works (POTWs), one is for a minor POTW, one is for a major industrial facility, and 4 are for minor industrial facilities.

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III. STATE PROGRAM BACKGROUND

A. Program Structure

The Hawaii water pollution control program began in the late 1960's in the Sanitary Engineering Branch of the Hawaii State Department of Health. This Branch included the water pollution control program, wastewater treatment facility construction grants program, and drinking water and swimming pool approval programs. In 1973, the Hawaii State Legislature formally established the water pollution control program through Act 100, which was codified as Chapter 342, Hawaii Revised Statutes (HRS), "Environmental Quality." Then, in November of 1974, EPA delegated the administration of the NPDES permit program in Hawaii to the HDOH. The Hawaii Administrative Rules (HAR) Title 11, Chapter 55, last revised in 2013, establishes standard permit conditions and requirements for NPDES permits issued in Hawaii.

The HDOH's Clean Water Branch is responsible for protecting and restoring inland and coastal waters for marine life and wildlife. This is accomplished through statewide coastal water surveillance and watershed-based environmental management through a combination of permit issuance, monitoring, enforcement, sponsorship of polluted runoff projects, and public education. NPDES permits are issued by the Engineering Section of the Clean Water Branch, which consists of 8 staff responsible for permits, policy, and guidance.

In order to ensure consistency, the Engineering Section uses templates for drafting permits based on facility type (i.e. POTW or industrial facility). For example, the permit template for POTWs includes sections on:

Part A. Effluent Limitations and Monitoring Requirements;
Part B. Whole-Effluent Toxicity;
Part C. Water Quality Criteria;
Part D. Zone of Initial Dilution;
Part E. Receiving Water Monitoring;
Part F. Wastewater Pollution Prevention;
Part G. Pretreatment Requirements;
Part H. Sludge/Biosolids Requirements;
Part I. Reporting Requirements;
Part J. Special Conditions; and
Part K. Location Map and Facility Flow Diagram

NPDES standard conditions are included as an attachment. On a permit-specific basis, attachments may also include a list of specific monitoring methods.

Fact sheets are also standardized and include:

A. Permit Information;
B. Facility Description;
C. Applicable Plans, Policies, and Regulations;
D. Rationale for Effluent Limitations and Discharge Specifications;
E. Rationale for Receiving Water Limitations;
F. Rationale for Monitoring and Reporting Requirements;

G. Rationale for Provisions; and
H. Public Participation.

B. NPDES Permits Universe and Issuance

Hawaii administers approximately 18 major permits, 31 non-stormwater minor permits, 2 Phase I MS4 permits, 9 Phase II MS4 individual permits, 200 stormwater minor permits, and 13 general permits, for a total of 273 permits. At the end of FY14, approximately 94 percent of NPDES permits in Hawaii were current.

Applicants applying for a permit in Hawaii use EPA permit application forms. Permit writers ensure that applications are complete and use this data along with other available data, such as discharge monitoring report (DMR) data from a previous permit term, to develop the permit requirements..

Some individual permits are drafted by EPA contractors and completed by the HDOH staff. These contractors are funded with State grant funds at the State's request. Once a draft permit is developed it undergoes internal review, then preliminary review (agencies, permittee, and any identified stakeholders), then public notice and comment. Public hearings are rarely requested. After consideration of all public comments, the permit is issued. Permit appeals are considered by the HDOH under their petition process.

C. State-Specific Challenges

In years past, HDOH went through both resource-related and technical challenges that delayed timely permit issuance. Some of these challenges remain, including:

- *Nutrient Water Quality Standards Implementation*. Hawaii has established numeric nutrient water quality standards for almost all waters. These standards are set at very low concentrations. In the past, compliance with these standards was set at the edge of granted mixing zones; however, many of Hawaii's waters are now listed as impaired for nutrients. Newly issued permits are including more enforceable water quality-based effluent limits (WQBELs) set end-of-pipe that incorporate dilution when available. In order to allow permittees time to comply with these very stringent limitations, permits include compliance schedules, which may extend beyond a permit term. In addition to compliance schedules, HDOH is looking at other permitting flexibilities to address this issue, such as intake credits, trading, or variances. Permittees concerned about this transition are contesting their permits.
- *General Permit Reissuance Process*. Hawaii has 13 general permits; however, because of State law, they are required to be issued as part of the Hawaii Administrative Rules. Reissuing these permits as rules requires a lengthy (approximately 1 year) administrative process. In the past, and due to this lengthy process, HDOH would reissue all general permits at the same time, resulting in all general permits expiring at the same time; however, this approach became burdensome. In the recent reissuance, HDOH staggered the expiration dates in order to have a manageable number of permits (3 or 4 at a time) to reissue in the next round and provide the time needed to focus on the quality of the permits.

- *High quality waters*. Discharges to special class waters (Class AA and Class 1, as established in the State's water quality standards) may not be covered by general permits in Hawaii. Thus, individual permits are required. This has created a resource drain on HDOH permit writers, as individual permits are required for a large number of very minor stormwater discharges. EPA has discussed the idea of creating a general permit to address discharges to these waters with HDOH.

D. Current State Initiatives

The HDOH is currently developing important new or revised policies to address several challenges that affect the NPDES program. First, HDOH recently adopted intake credit authorization and compliance schedule clarification language in the Hawaii Administrative Rules (HAR 11-54). These changes to the water quality standards will allow permit writers to apply intake credits in appropriate situations for WQBELs. The revised language also clarifies the requirements for compliance schedules, which are increasingly being included in permits to provide time for permittees to comply with new nutrient limits. HDOH also adopted EPA's new bacteria criteria, which provides clear bacteria standards applicable beyond 300 meters offshore. Previously, permit writers had to rely on EPA's promulgation for bacteria criteria beyond 300 meters offshore.

Lastly, HDOH is developing a standardized monitoring assessment methodology to evaluate water quality data for several purposes, including CWA 303(d) listing/delisting, water quality-based NPDES permitting requirements (i.e. reasonable potential analysis, assimilative /dilution credits, and anti-degradation analysis), and non-point source program targeting and effectiveness. EPA staff participated in a June 2014 workshop with HDOH to begin development of this methodology and participated in further discussions with HDOH during the FY14 end-of-year meetings in January 2015. HDOH plans to include the new methodology in the next Integrated Report, which is scheduled to be completed this year.

IV. CORE REVIEW FINDINGS

A. Basic Facility Information, Permit Application, and Permit Provisions

1. Facility Information

Basic facility information is necessary to properly establish permit conditions for a facility. For example, information regarding facility type, location, processes and other factors is required by NPDES permit application regulations (40 CFR 122.21) because such information is essential for developing technically sound, complete, clear and enforceable permits. Similarly, fact sheets must include a description of the type of facility or activity subject to a draft permit.

The individual NPDES permits and fact sheets reviewed during the core review consistently identified outfalls and location information relative to receiving waters. Fact sheets included good descriptions of the relevant facilities, including the activity, treatment processes and disposition of effluent, consistent with the permit applications.

2. Permit Application Requirements

Federal regulations at 40 CFR 122.21 and 122.22 specify application requirements for facilities seeking NPDES permits. EPA forms are available, but authorized states are also permitted to use their own forms provided they include all information required by the federal regulations. This portion of the review assesses whether appropriate, complete, and timely application information was received by the state and used in permit development.

HDOH requires permittees to submit applications using EPA forms through the State's e-permitting portal. A signed hard copy of the permit application is still required to be submitted to HDOH until the State receives cross-media electronic reporting regulation (CROMERR) approval for e-permitting. HDOH also offers permittees the ability to pay permit fees online. In addition to permit application forms, HDOH has recently begun requesting permittees provide a spreadsheet of all DMR data from the previous permit term when submitting a permit renewal application. If HDOH determines the application is incomplete, permit writers notify the permittee in an email through the e-permitting portal.

In general, the HDOH permit files we reviewed contain current, appropriate, and complete permit applications, including the applicable EPA form. Permits clearly indicate that a new permit application is required 180 days prior to expiration; however, of the permits reviewed, six of the permit applications were submitted late. HDOH staff indicated that the e-permitting portal provides the ability to set reminders for the permittees to reapply and that this is routinely performed for filers under general permits, but more infrequently performed for individual permittees.

3. Basic Permit Provisions

During review of the basic permit provisions, we found permits consistently included issuance, effective, and expiration dates, authorized signatures, and standard conditions. We identified two issues, however, related to the identification of impairments and TMDLs. Generally, HDOH includes a thorough discussion of applicable impairments and TMDLs; however, two permit fact sheets lacked this information. One of the permit fact sheets did not describe whether there were any impairments applicable to the permitted stormwater outfall, but did include this information for the wastewater outfall. Also, another permit fact sheet did not clearly identify whether or not there are applicable TMDLs associated with the listed receiving water impairments, but did include requirements in the permit for development of a plan to comply with any future approved TMDLs. These issues appear to be oversights, and are not expected to continue to be problematic as long as HDOH consistently follows their updated permit templates.

B. Effluent Limitations

Effluent limits serve as the primary mechanism in NPDES permits for controlling discharges of pollutants to receiving waters. When developing effluent limits for an NPDES permit, a permitting authority must consider limits based on both the technology available to control the pollutants (i.e., technology based effluent limits or TBELs) and limits that protect the water quality standards of the receiving water (i.e., water quality-based effluent limits or WQBELs).

General

Hawaii permits consider and incorporate both applicable TBELs and WQBELs; however, some clarification of these requirements is needed to ensure applicable requirements are consistently applied. First, it is not clear whether the more stringent TBEL or WQBEL is selected for the effluent limit, since fact sheets do not discuss this comparison. Fact sheets do discuss the need to assess both; however, fact sheets should include a more clear comparison of potential TBELs and WQBELs for each pollutant.

Second, our review found that some fact sheets are not clear whether the limit for a particular pollutant is a TBEL or a WQBEL. This has been an issue for oil & grease limitations. Also, one permit included limitations for BOD and TSS that were established in the permit many years ago and the basis was since lost. The basis for each limit should be clearly described in the fact sheet. HDOH's updated permit templates provide the structure needed to provide this information.

Anti-backsliding, Anti-degradation, and Compliance Schedules

In addition to TBEL and WQBELdevelopment, a permitting authority must assure compliance with anti-backsliding provisions to ensure limits are at least as stringent as in the previous permit, anti-degradation provisions to ensure a new or increased loading does not degrade water quality, and compliance schedules consistent with 40 CFR 122.47 and EPA's May 2007 memorandum.

Anti-backsliding

Backsliding provisions under 40 CFR 122.44(l) for TBELs and CWA sections 402(o)/303(d)(4) for WQBELs outline when it may be permissible for a permitting authority to allow limitations that are less stringent than in the previous permit. Generally, Hawaii permits and fact sheets are specific when discussing effluent limits and anti-backsliding, including the specific pollutant and citing the applicable exception; however, we found two permits that did not address anti-backsliding requirements for a particular pollutant. Additionally, another permit did not address the use of a less stringent water quality standard in the reasonable potential analysis. HDOH needs to consistently describe how less stringent limitations meet anti-backsliding requirements in the fact sheet.

Anti-degradation

Hawaii's anti-degradation policy is found within HAR Title 11, Chapter 54, Section 1.1, and Hawaii's implementation methods are described in Hawaii's 2001 Continuing Planning Process (HCPP) document. The implementation methods mirror those in EPA Region 9's 1987 Guidance. In 2009, we released the draft *U.S. EPA Region 9 Anti-degradation Policy Implementation Review* and, as a result, have observed improvements in the quality of anti-degradation analyses in Hawaii permits.

Generally, Hawaii permits are including more stringent requirements in order to implement water quality standards, and as a result, are not allowing increased loadings of pollutants. In those rare cases where a permit limit is less stringent or a facility has requested an increase in flow, fact sheets include an adequate anti-degradation discussion. Of note is HDOH's recent assimilative capacity assessment approach for the implementation of nutrient water quality standards. Beyond review of the State's 303(d) list, permit writers assess the ambient control station data collected by permittees for compliance with permit mixing zone (zone of mixing, or ZOM) requirements. If the permit writer determines there is no assimilative capacity available, no dilution factor is granted in the reasonable potential analysis or WQBEL calculations. This assessment has the added benefit of effectively accounting for contributions from other sources.

Compliance Schedules

Hawaii's compliance schedule policy is found within HAR Title 11, Chapter 55. On March 18, 2013, EPA approved HDOH's policy, in accordance with CWA Section 303(c) and implementing federal regulations at 40 CFR 131, to implement schedules of compliance for state-adopted water quality standards in NPDES permits. The following sections of HAR, Chapter 11-55 contain Hawaii's provisions to implement schedules of compliance: 11-55-01, 11-55-08(a)(2)(B), 11-55-15(d), 11-55-19(a)(4)(A), 11-55-21, and 11-55-22.

Compliance schedules were included in several of the reviewed permits to provide time for compliance with WQBELs for nutrients, enterococcus, etc. These schedules contain adequate action-based milestones and interim effluent limits. The fact sheets include justification for why a compliance schedule is needed and lay out the timeframes and milestones; however, the fact sheets are not very specific regarding how HDOH made the determination that the length of the schedule requires compliance "as soon as possible," as required by 40 CFR 122.47. HDOH seems to rely on the permittees' proposed schedules, but should review these schedules and consider changing or shortening them if necessary to meet the requirements of 40 CFR 122.47. Additionally, all of the factors leading to HDOH's determination that the compliance schedule

ensures compliance with final effluent limits "as soon as possible" should be documented in the fact sheet.

It should be noted that HDOH frequently asserts that the schedule meets this requirement because the permit includes language that the permittee shall comply with the final effluent limit "as soon as possible" regardless of the length of the schedule. This language would be much more difficult to enforce than the final compliance date listed in the permit. Therefore, HDOH should ensure that the final compliance date meets the "as soon as possible" requirement of 40 CFR 122.47 and document the rationale in the fact sheet. In making this determination, HDOH needs to consider the specific steps needed to modify or install treatment facilities, operations or other measures and the time those steps would take. The final compliance date should be set based on the shortest timeframe required to complete these steps.

1. Technology-based Effluent Limitations

NPDES regulations at 40 CFR 125.3(a) require that permitting authorities develop technology-based treatment requirements. Permits, fact sheets and other supporting documentation for POTWs and non-POTWs were reviewed to assess whether these "technology-based effluent limitations" (TBELs) represent the minimum level of control that must be imposed in a permit.

a. *TBELs for POTWs*

POTWs must meet secondary or equivalent to secondary standards (including limits for BOD_5, TSS, pH, and percent removal). Thus, permits issued to POTWs must contain limits for all of these parameters (or authorized alternatives) in accordance with the Secondary Treatment Regulations at 40 CFR Part 133.

The permits and fact sheets developed for municipal facilities that were part of the core review provide a good description of wastewater treatment processes and discussion of the basis of TBELs. The permits reviewed consistently apply secondary treatment standards appropriately. Effluent limitations were established using the appropriate units and forms (i.e., concentration or mass; average weekly and average monthly), and include the appropriate percent removal requirements. Tables in the fact sheets summarize the parameters that are limited and the rationale for those limits (i.e., 40 CFR 133.102).

b. *TBELs for Non-Municipal Dischargers*

Permits issued to non-municipal dischargers must require compliance with a level of treatment performance equivalent to "Best Available Technology Economically Achievable (BAT)" or "Best Conventional Pollutant Control Technology (BCT) for existing sources, and consistent with "New Source Performance Standards (NSPS)" for new sources. Where effluent limitations guidelines (ELGs) have been developed for a category of dischargers, TBELs must be based on the application of these guidelines. If ELGs are not available, a permit must include requirements at least as stringent as BAT/BCT developed on a case-by-case basis, or best professional judgment (BPJ) basis, in accordance with the criteria outlined at 40 CFR 125.3(d).

In the permits reviewed, HDOH properly applied the effluent limitation guidelines developed for each discharger category; however, HDOH should more clearly describe how each categorization and performance level were determine to be applicable (BAT, etc.) in permit fact sheets, as one of the permits reviewed was unclear.

The larger issue discovered in the permits reviewed was documentation of the justification and calculation of BPJ-based limits. Several permit fact sheets either stated that a limitation was based on BPJ, or did not describe the basis for a limitation. These fact sheets did not describe how the limits were developed based on the criteria in 40 CFR 125.3(d) nor how they were calculated. As mentioned above, this is typically an issue for oil & grease limitations, as permit fact sheets are unclear whether these limits are BPJ-based TBELs, or whether they are based on water quality standards and thus, WQBELs. One permit included limitations for iron based on conditions in the multi-sector general permit applicable to the type of facility operation, but did not document how the limit was developed. Another permit included limitations for TSS, but the fact sheet did not clearly document how the limit was developed.

Permit limitations that were established many permit terms ago are also a problem. For one permit, the BPJ-based limitations for BOD and TSS were carried over and the previous justification was since lost. Removing the limitations would be problematic due to anti-backsliding requirements, so the limitations were retained.

Lastly, two permits included BPJ-based limits calculated with the maximum or design flow, rather than a reasonable measure of actual production. One of the permits included these limits based on the design capacity of the facility's pumps, since the pumps are single-speed and not variable speed, although monthly average flows may vary. Another permit included limits for TSS based on the maximum facility flow. Overall, documentation of the basis and calculation of BPJ-based limits needs to be improved.

2. Water Quality-Based Effluent Limitations

The NPDES regulations at 40 CFR 122.44(d) require permits to include any requirements in addition to or more stringent than technology based requirements where necessary to achieve applicable water quality standards (WQS), including narrative criteria for water quality. To establish such water quality-based effluent limits (WQBELs), the permitting authority must evaluate the proposed discharge and determine whether technology-based requirements are sufficiently stringent and whether any pollutants could cause or contribute to an excursion above any applicable WQS.

The PQR assessed the processes employed by permit writers to implement these requirements. Specifically, the PQR reviewed permits and fact sheets, and in some cases other documents in the administrative record, to evaluate how the permitting authority identifies applicable WQS,evaluates and characterizes the effluent and receiving water to identify pollutants of concern, determines critical conditions, assesses dilution (if authorized), decides whether WQBELs are required, and calculates and expresses required WQBELs. For impaired waters, the PQR also assessed whether and how the permitting authority develops effluent limits consistent with the assumptions of applicable EPA-approved total maximum daily loads (TMDLs).

Hawaii's water quality standards are included in HAR Title 11, Chapter 54, which establishes beneficial uses and classifications of state waters, the state anti-degradation policy, zone of mixing (ZOM) standards, numeric aquatic life standards for 72 toxic pollutants, human health standards for 60 toxic pollutants, narrative standards for toxicity, and numeric standards for nutrients and other nonconventional pollutants for specific waters.

HDOH determines pollutants of concern by considering the previous permit limits, water quality standards for the receiving water, and discharge monitoring report data. Reasonable potential analysis (RPA) for toxic pollutants is performed using the procedures included in EPA's TSD (*Technical Support Document for Water Quality-based Toxics Control, 1991).* The 1989 *State Toxics Control Program: Derivation of Water Quality-Based Discharge Toxicity Limits for Biomonitoring and Specific Pollutants* (STCP) provides procedures for translating water quality standards for toxics into water quality-based effluent limits in NPDES permits. HDOH permit writers follow the procedures in the STCP to develop permit limits for toxics once reasonable potential is determined.

In order to assess reasonable potential for excursions above nutrient water quality standards (total nitrogen, total phosphorus, ammonia, and nitrate+nitrite), HDOH performs a direct comparison of the receiving water concentration at the edge of the ZOM and the most stringent water quality standard. In the past, HDOH set limits for nutrients at the edge of the ZOM rather than back-calculating the limits end-of-pipe with a dilution factor representative of the ZOM. Compliance with limits set at the edge of the ZOM was difficult to determine, since permittees are rarely the sole contributor of pollutants to a waterbody. In order to provide more representative compliance sampling and improve enforceability of permit limits, HDOH is transitioning to end-of-pipe WQBELs, calculated with a representative dilution factor; however, in many cases, new dilution studies are necessary to determine the representative dilution factor. Thus, for recent reissuances, HDOH is determining reasonable potential at the edge of the ZOM, since it is representative of the limit considering dilution, and including dilution study requirements to be completed during the permit term. As these permits are renewed, HDOH will have the information necessary to assess reasonable potential and calculate WQBELs with a dilution factor representative of the ZOM.

Also, where there are ZOM data available, HDOH is assessing whether assimilative capacity is available in the receiving water before granting dilution. In addition to reviewing the 303(d) list to see if the receiving water is impaired, annual geometric means of control station receiving water data (outside the influence of the ZOM) are used to determine if the concentration of a pollutant in the receiving water exceeds 90% of the water quality standard. If so, no dilution is granted and water quality standards are set as permit limits end-of-pipe. If assimilative capacity is available and dilution is granted, permits include performance-based limits until dilution factors can be obtained through the process described above. This practice supplements information in the 303(d) list and effectively prevents further degradation of receiving waters.

Since RPA is a special focus area of this PQR, a more detailed review can be found below in Section V.A.

Regarding WQBELs, the permits generally follow the process described above; however a few issues were discovered. First, WQBELs are sometimes not expressed in both short and long-term limits. Several permits include only short-term limits for performance-based limits and one included limits translated from TMDL wasteload allocations. This issue may be a result of following the STCP procedures for toxics if there is only one type of criterion available (aquatic life or human health) for a pollutant. The policy specifies that a daily maximum limit be set for aquatic life criteria and a 30-day average or annual average be set for human health criteria. The performance-based limits and TMDL WLAs, however, are for nutrients and for continuous dischargers. Thus, HDOH should have included an explanation of why both short and long-term limits were impracticable, pursuant to the requirements in 40 CFR 122.45.

Second, final WQBELs in one permit were not consistent with the justification in the fact sheet. The fact sheet described WQBELs that were less stringent than the previous permit WQBELs, but the permit correctly included the more stringent limits in accordance with anti-backsliding requirements. This appears to be an oversight regarding fact sheet documentation and would not be expected to reoccur.

Third, a zone of mixing was carried over in one permit, which did not account for contributions from other sources. Since renewal of this permit, HDOH has adopted the nutrient WQS approach described above, which would have addressed contributions from other sources by performing the assimilative capacity assessment. Thus, this issue is also not likely to reoccur.

Lastly, a permit appeared to contain a CWA 316(a) variance; however, the permittee can meet the WQS for temperature with the provided mixing zone. Thus, a 316(a) variance is not necessary. There appears to be some confusion over the need for a 316(a) variance among HDOH permit writers; however, EPA recently provided HDOH training on these requirements, so this should not be an issue in the future.

In general, HDOH has significantly improved implementation of water quality standards in permits. In this review, TMDL WLAs were implemented, assimilative capacity was assessed, monitoring for impairment pollutants was included, and WQBELs were included when RP was determined. Most of the WQBEL issues identified in this review have been addressed through training or development of implementation procedures, and are therefore not expected to reoccur. The remaining issue regarding the need to include both short and long-term limits, unless impracticable, needs to be addressed through training and/or revision of implementation procedures.

C. Monitoring and Reporting

The NPDES regulations require permittees to periodically evaluate compliance with the effluent limitations established in their permits and provide the results to the permitting authority. Monitoring and reporting conditions require the permittee to conduct routine or episodic self-monitoring of permitted discharges and where applicable, internal processes, and report the analytical results to the permitting authority with information necessary to evaluate discharge characteristics and compliance status.

Specifically, the regulations at 40 CFR 122.44(i) require NPDES permits to contain monitoring requirements sufficient to assure compliance with permit limitations, including specific requirements for the types of information to be provided and the methods for the collection and analysis of such samples. The regulations at 40 CFR 122.48 also require that permits specify the type, intervals, and frequency of monitoring sufficient to yield data which are representative of the monitored activity. The regulations at 40 CFR 122.44(i) further require reporting of monitoring results, with a frequency dependent on the nature and effect of the discharge.

The permits reviewed include appropriate monitoring and reporting requirements based on the facility type, type of discharge, and corresponding limit basis. Influent monitoring is required for BOD_5 and TSS for POTWs. The permits include a general requirement that monitoring must be conducted according to test procedures approved under 40 CFR 136. General monitoring locations are stated in the permits. Most permits require monitoring for chronic whole effluent toxicity, unless the permit application states that there are no toxics identified as present in the discharge and no industrial users discharge to the facility. In determining the appropriate monitoring requirements, HDOH permit writers look at permits for similar facilities, water quality standard frequency requirements (such as those for bacteria indicators), and balance the need for data with the cost of monitoring. The fact sheets discuss the rationale for the monitoring requirements for the respective permits.

In addition to monitoring required to demonstrate compliance with effluent limitations, some of the permits reviewed include effluent monitoring of pollutants for which the receiving water is impaired but a TMDL has not yet been developed, ambient sampling at control stations outside the influence of a ZOM, or temperature, sediment or coral reef community monitoring in the receiving water. This information will be useful in performing the reasonable potential analysis at the next permit reissuance and for assessing the status of, and the impact of the discharge on, the receiving water.

As far as reporting requirements, permits include consistent language requiring electronic submittal of DMRs through NetDMR for major facilities or through the State's e-permitting portal. Permits also consistently include submittal requirements for compliance with special studies.

Overall, the permits were consistent with federal requirements for monitoring and reporting.

D. Standard Conditions and Special Conditions

The regulations at 40 CFR 122.41 require that all NPDES permits, including NPDES general permits, contain an enumerated list of "standard" permit conditions. Further, the regulations at 40 CFR 122.42 require that NPDES permits for certain categories of dischargers must contain certain additional standard conditions. Permitting authorities must include these conditions in NPDES permits and may not alter or omit any standard condition, unless such alteration or omission results in a requirement more stringent than required by the Federal regulations.

In addition to this required standard permit conditions, permits may also contain additional standard requirements that are unique to a particular category of permittee. These case-specific

narrative requirements are generally referred to as "special conditions." Special conditions might include requirements such as: additional monitoring or special studies, best management practices (see 40 CFR 122.44(k)), and/or permit compliance schedules (see 40 CFR 122.47). Where a permit contains special conditions, such conditions must be consistent with applicable regulations.

Standard Condtions

For HDOH permits, standard conditions established at 40 CFR 122.41 and relevant portions of 122.42 are included online and referenced on page 1 of each permit. This document is updated periodically and is now in its 14th version. The conditions are generally consistent with federal requirements, except for a few areas described below.

First, the requirements deviate from 40 CFR 122.41(j)(4) and 40 CFR 122.41(l)(4)(ii) for monitoring and records and monitoring reports. These sections cite 40 CFR 503 instead of subchapters N and O, and therefore, exclude the requirements for pretreatment, ELGs, and additional sewage sludge requirements. Also, the monitoring reports requirements is missing the 40 CFR 122.41(l)(4)(i) statement "as specified by Director" for sludge monitoring. This language should be changed to be consistent with the federal requirements.

Second, the standard conditions are missing the 24-hour reporting requirement when there is a violation of a maximum daily discharge limit (40 CFR 122.41(l)(6)(ii)(C)) and also under the "other noncompliance" standard condition (40 CFR 122.41(l)(7)). The 24-hour reporting requirements for an upset and bypass are included under the upset and bypass standard conditions. It should be noted that 24-hour reporting requirements were explicitly included in several of the permits reviewed, but the reason for this specificity was not clear.

Conversely, the State's standard conditions for monitoring and records include a more stringent requirement for record retention of 5 years for all records (rather than the federal requirement to retain permit monitoring records for 3 years and sludge records for 5 years). This is acceptable, as Federal regulations allow states to adopt more stringent requirements.

One other standard provision HDOH includes in permits is a reference to 40 CFR with the most recent date. A few of the permits reviewed did not include the most recent CFR date, which could be problematic for enforcement. HDOH should ensure the most recent CFR date is referenced in each permit.

Overall, it is likely that HDOH's standard conditions have not been reviewed for consistency with federal requirements in some time and therefore require an update.

Special Conditions

HDOH makes good use of special conditions in order to provide information for the next permit reissuance. The permits reviewed included a variety of special conditions including best management practices, special studies, or compliance schedules. Best management practices

were specified in some permits, but in others, a BMP plan submittal was required. Special studies were included, such as thermal monitoring plans, impingement and entrainment characterizations, nutrient source identification studies, and dilution/assimilative capacity studies. As mentioned above, compliance schedules may be included. Where these requirements apply to multiple permits, HDOH includes consistent language.

E. Administrative Process

The administrative process includes documenting all permit decisions, coordinating EPA and State review of the draft (or proposed) permit, providing public notice, conducting hearings (if appropriate), responding to public comments, and defending the permit and modifying it (if necessary) after issuance. The PQR team discussed each element of the administrative process with HDOH permitting staff, and reviewed materials from the administrative process as they related to permits reviewed for the core permit review.

As discussed above, HDOH receives applications through the e-permitting portal and in hard copy form. EPA application forms are used. In addition, HDOH has recently requested permittees provide all DMR data from the permit term in a spreadsheet at the time of reapplication. Once permits are drafted, HDOH sends a letter (based on a template) to the permittee, instructing them to public notice the permit on a specific date. Permittees are required to provide HDOH a public notice affidavit within 2 weeks of public notice. HDOH clerical staff also check websites/newspapers for confirmation. A 30-day public comment period is provided. HDOH then provides all comments received to the permittee and requests clarification on comments related to the facility operation. HDOH addresses all comments in a response to comments document, which is provided to the permittee with the final permit. If a hearing is requested, the Deputy Director decides whether to grant the hearing. If a hearing is granted, HDOH staff coordinate public notice and scheduling of the hearing with the hearing officer. If a permit is contested, HDOH coordinates with their Attorney General. Recently, due to newly imposed limits on nutrients and enterococcus, many permits have been contested.

F. Documentation

The administrative record is the foundation that supports the NPDES permit. If EPA issues the permit, 40 CFR 124.9 identifies the required content of the administrative record for a draft permit and 40 CFR 124.18 identifies the requirements for final permits. Authorized states should have equally strong documentation. The record allows personnel from the permitting agency to reconstruct the justification for a given permit and defend the permit during any legal proceedings regarding the permit. The administrative record for a draft permit consists, at a minimum, of the permit application and supporting data, draft permit, fact sheet or statement of basis, all items cited in the statement of basis or fact sheet, including calculations used to derive the permit limitations, meeting reports, correspondence with the applicant and regulatory personnel, and all other items supporting the file.

For the permits reviewed, the administrative records can be found on HDOH's Water Pollution Control (WPC) database. HDOH is in the process of moving to a purely electronic, paperless

system, which includes determining the schedule to retain paper files. At the time of the site-visit, HDOH mentioned they have moved ~65,000 records into this database. All non-confidential documents from the permit folder are publicly accessible in the WPC Viewer. Once a permit is public-noticed or final, all documents are downloaded into this database. HDOH also mentioned that this database improves transparency and relieves the time and effort to address public requests for documents.

Although most permit records were complete, some of the documents were not found online. The PQR team notified HDOH of this issue and it has been corrected. Additionally, some of the documents were difficult to find because the file names were not standardized, so we recommend HDOH consider establishing a standardized naming convention for permit documents. We also noted a few typos during this review, so we recommend HDOH improve overall quality control. Overall, HDOH does a good job maintaining permit administrative records and is forward-thinking in their effort to move all records to an electronic system.

1. Fact Sheet or Statement of Basis

Under 40 CFR 124.8 and 124.56 fact sheets are required for major NPDES permits, general permits, permits that incorporate a variance or warrant an explanation of certain conditions, and permits subject to widespread public interest. Current regulations require that fact sheets include:

- General facility information
    - Description of the facility or activity
    - Sketches or a detailed description of the discharge location
    - Type and quantity of waste/ pollutants discharged
- Summary rationale of permit conditions
    - Summary of the basis for draft permit conditions
    - References to the applicable statutory or regulatory provisions
    - References to the administrative record
- Detailed rationale of permit conditions
    - Explanation and calculations of effluent limitations and conditions
    - Specific explanations of:
        - Toxic pollutant limitations
        - Limitations on internal waste streams
        - Limitations on indicator pollutants
        - Case-by-case requirements
        - Decisions to regulate non-publically owned treatment works under a separate permit
    - For EPA-issued permits, the requirements for any state certification
    - For permits with a sewage sludge land application plan, a description of how all required elements of the land application plan are addressed in the permit

    - Reasons why any requested variances do not appear justified, if applicable
- Administrative requirements
    - A description of the procedures for reaching a final decision on the draft permit, including:
        - Public comment period beginning and ending dates
        - Procedures for requesting a hearing
        - Other procedures for public participation
    - Name and telephone number of the person to contact for additional information.

The fact sheet and supporting documentation were reviewed with the administrative record of the permit file as part of the PQR to assess whether the basis or rationale for limitations and other permit decisions were documented in the development of the final permit.

HDOH develops fact sheets for all permits, including minors. The fact sheets generally provide a good description of the facility, treatment process, effluent, policy and regulations, and a clear documentation of the decision-making process employed during permit development for determination of effluent limits. The fact sheets also describe the rationales for monitoring requirements, any special studies, compliance schedules and interim effluent limitations, or other conditions the permit might include.

Despite the amount of information included in fact sheets, we identified some documentation issues, which are discussed under each applicable program element in this PQR. Overall, HDOH needs to be more consistent in providing clear and concise fact sheets so the basis for the permit requirements is easily understood by permittees and the public.

G. Core Topic Areas

Core topic areas are aspects of the NPDES permit program that warrant review based on the specific requirements applicable to the selected topic areas. These topic areas have been determined to be important on a national level**.** Core topic areas are reviewed for all state PQRs.

1. Nutrients

Nitrogen and phosphorus pollution of all types of surface waters has consistently ranked among the top causes of degradation in U.S. waters for more than a decade. EPA has worked at reducing the levels and impacts of this pollution since 1998 and continues to support a range of efforts including the development and implementation of numeric nutrient criteria. In March of 2011, EPA announced a framework for nutrient reductions that in part called for ensuring the effectiveness of point source permits in sub-watersheds targeted or identified as priorities due to nutrient pollution. The framework specifically identified permits for municipal and industrial wastewater treatment facilities that contribute significant nitrogen and phosphorus loadings, CAFOs, and urban stormwater sources that discharge into nitrogen and phosphorus–impaired waters or are significant sources of nitrogen or phosphorus. EPA Region 9 reviewed each of the permits selected for this PQR for nutrient monitoring and limitations.

As described above, HDOH has established numeric WQS for several nutrient parameters: total nitrogen, total phosphorus, nitrate + nitrite, and ammonia. HDOH not only assesses reasonable potential for a discharge to cause or contribute an excursion above these WQS, but also considers ambient data and any impairments on the CWA 303(d) list to determine whether assimilative capacity is available to provide a dilution factor. A number of waters in Hawaii are listed as impaired for nutrients and a few TMDLs have been developed. Of the permits reviewed for this PQR, 7 include limits for nutrients. Two permits include limits for total nitrogen and total phosphorus based on established TMDL WLAs. Three permits include performance-based limits for ammonia and one of these also includes performance-based limits for nitrate + nitrite. Lastly, two permits include limits based on the WQS end-of-pipe because dilution was not granted. For those permits where dilution cannot be granted, HDOH provides compliance schedules to allow the permittees time to come into compliance with the new limits. Overall, HDOH is ahead of many states in implementing nutrient water quality standards to protect receiving waters.

2. Pesticide General Permit

On October 31, 2011, the EPA issued a final NPDES *Pesticide General Permit (PGP) for Discharges from the Application of Pesticides*. HDOH issued their pesticide general permit in October 2012. The permit mirrors EPA's national permit.

3. Pretreatment

The pretreatment program review assessed specific language in POTW permits. Focus was placed on regulatory requirements for pretreatment activities and pretreatment programs (40 CFR Parts 122.42(b), 122.44(j), 403, and 403.12(i)).

HDOH includes standard pretreatment requirement language recommended by EPA in permits where the facility is required to have a pretreatment program. In this review, three permits were for POTWs, of which, one is required to have pretreatment program. This permit included the standardized permit language with additional urban area pretreatment requirements carried over from the previous permit when the 301(h) waiver was in effect, since the facility is on a lengthy schedule to comply with secondary treatment requirements. One of the other POTW permits includes some pretreatment language to address oil inputs to the facility, but the facility is not required to establish a formal program. For the POTW permit with pretreatment program requirements, 40 CFR 403 is incorporated by reference, standard notification requirements under 40 CFR 122.42(b) are included in the standard conditions, and the fact sheet describes why a pretreatment program is required. However, the fact sheet does not state when the pretreatment program was approved or modified, or describe the types of industrial users. Thus, adequate requirements are being included in permits, but additional documentation in the fact sheet is needed.

4. Stormwater

The NPDES program requires stormwater discharges from certain municipal separate storm sewer systems (MS4s), industrial activities, and construction sites to be permitted. Generally,

EPA and NPDES-authorized states issue individual permits for medium and large MS4s and general permits for small MS4s, industrial activities, and construction activities.

HDOH administers two Phase I MS4 permits. EPA reviewed the State of Hawaii Department of Transportation, Highways Division MS4. This permit was generally well-written and includes clear requirements for implementation of applicable TMDL WLAs for nutrients and suspended solids; however, the permit could be improved by addressing the following items:

- It is unclear whether the permittee has the legal authority necessary to implement and enforce an illicit discharge program. The permit references the MOU, but there is not a description of the MOU, and the MOU is not attached.
- While the permit requires mapping of the MS4, including structural and vegetative BMPs, the permit should require mapping of the names and locations of all waters of the U.S. that receive discharges from the outfalls (40 CFR 122.34(b)(3)). EPA also recommends the permit specifically require mapping of system inlets and catch basins.
- The fact sheet should document permit requirements and provide the rationale for specific permit requirements. The fact sheet focuses on documenting changes between the public notice draft permit and the final permit, but does not describe the requirements for public education, outreach, public involvement, or how the permit ensures compliance with anti-degradation requirements.
- EPA also recommends that future re-issued permits specify the LID performance standards after the post-construction best management practices are revised to include such standards.

Overall, we recommend HDOH improve attention to detail, including clear requirements and documenting the basis for requirements in the fact sheet.

V. SPECIAL FOCUS AREA FINDINGS

EPA Region 9 selected reasonable potential analysis, enforceability of permits, and low impact development requirements in MS4 permits as special focus areas.

A. Reasonable Potential

As described above, HDOH performs RPA for toxics using TSD procedures and RPA for nutrients and other nonconventional pollutants by directly comparing the receiving water concentration at the edge of the ZOM with the most stringent water quality standard. A few issues regarding RPA were discovered in the reviewed permits. First, in one permit, reasonable potential was determined to exist for total nitrogen, ammonia, and nitrate+nitrite but limits were not set. The reasoning behind not setting limits was the lack of data (only 1 data point) to determine representative performance-based limits. This permit was reissued prior to HDOH adoption of the nutrient WQS approach described above and it was not clear that performance-based limits were appropriate in this case.

Also, RPA was inconsistently performed in one permit using non-detect effluent data where the method detection limits (MDL) were known. RP was determined to exist for one pollutant where

the MDL > WQS; however, a determination of "no reasonable potential" was made for another pollutant with the same scenario. HDOH needs to be consistent in how they incorporate non-detect data into RP analyses.

Lastly, in past fact sheets it was difficult to reproduce how the RPA was performed. Specifically, the number of samples and applicable dilution factors by pollutant were not included. HDOH has subsequently started including this information in fact sheets in order to be transparent.

Overall, an update to HDOH's permit implementation procedures would help improve consistency regarding RPA.

B. Enforceability of Permits

As described above, HDOH has improved the enforceability of permits by transitioning from limits established at the edge of the ZOM to WQBELs end-of-pipe that incorporate applicable dilution factors. It is difficult to prove a discharger is responsible for an excursion above water quality standards when samples are taken in the middle of the ocean. The new WQBELs will provide for more representative compliance sampling and protect water quality.

Also, HDOH's stormwater permits have become much more prescriptive and enforceable. They now include clear requirements for the implementation of TMDL WLAs. In addition, permittees are required to implement plans upon submittal to the permitting authority, rather than contingent upon permitting authority approval, which resulted in implementation delays in the past.

C. Low Impact Development

As discussed in the stormwater section above, the reviewed MS4 permit includes LID provisions, but left it up to the permittee to determine the quantitative standards. We recommend inclusion of specific LID performance standards in all future MS4s. Examples can be found in the California MS4 permits for Los Angeles, San Diego, and Orange County.

VI. ACTION ITEMS

This section provides a summary of the main findings of the review and provides proposed Action Items to improve Hawaii's NPDES permit program. This list of proposed Action Items will serve as the basis for ongoing discussions between EPA Region 9 and HDOH as well as between EPA Region 9 and EPA HQ. These discussions should focus on eliminating program deficiencies to improve performance by enabling the timely issuance of good quality, defensible permits.

The proposed Action Items are divided into three categories to identify the priority that should be placed on each Item and facilitate discussions between regions and states.

- **Critical Findings** (Category 1) - Most Significant: proposed action items will address a current deficiency or noncompliance with a federal regulation.
- **Recommended Actions** (Category 2) - Recommended: proposed action items will address a current deficiency with EPA guidance or policy.

- **Suggested Practices** (Category 3) - Suggested: proposed items are listed as recommendations to increase the effectiveness of Hawaii's NPDES permitting program.

The critical findings and action items should be used to augment the existing list of "follow up actions" currently established as an indicator performance measure and tracked under EPA's Strategic Plan Water Quality Goals and/or may serve as a roadmap for modifications to the EPA's program management.

The action items include discrete actions to bring HDOH attention to permitting improvements needed to ensure permit and fact sheet quality. In addition, EPA Region 9 will continue to review a significant percentage of draft HDOH permits each year to ensure these issues are addressed.

A. Basic Facility Information, Permit Application, and Permit Provisions

The HDOH fact sheets and permit files reviewed provide a good level of facility information upon which to base permit requirements. In general, permit applications appear to be appropriate, timely, and complete. Proposed Action Items to help HDOH strengthen their NPDES permit program include the following:

- The State should revise its permit template and/or provide permit-writer training to remind permit writers to identify and address applicable TMDLs and impaired receiving water settings for all outfalls in the fact sheet (Category 1).

B. Technology-based Effluent Limitations

In general, the HDOH permits reviewed properly implement TBELs for municipal and non-municipal facilities. Proposed Action Items to help the State strengthen their NPDES permit program include the following:

- The State should, through revisions to the permit template or training:
    - Remind permit writers that the most stringent of the applicable TBELs or WQBELs is to be included for each pollutant in permits and documented in fact sheets (Category 1).
    - Remind permit writers to clearly describe how each categorization and performance level were determine to be applicable (BAT, etc.) in fact sheets (Category 1).
    - Remind permit writers to clearly document the justification and calculation of BPJ-based limits in fact sheets (Category 1).

C. Water Quality-Based Effluent Limitations

The permits reviewed include WQBELs and the fact sheets and permit files document the basis for these limits. Proposed Action Items to help the State strengthen their NPDES permit program include the following:

- The State should, through revisions to the STCP, permit template, or training, remind permit writers that final WQBELs must be expressed as both short and long-term limits unless impracticable, and to document this decision in fact sheets (Category 1).
- The State should, through revisions to the permit template, or training, remind permit writers to document findings in fact sheets regarding anti-backsliding requirements for each applicable pollutant (Category 1).
- The State should provide training to permit writers on requirements for developing and documenting compliance schedules in fact sheets, specifically how to determine the final compliance date meets the "as soon as possible" requirement of 40 CFR 122.47 (Category 1).
- The State should provide permit writers training on the applicability of 316(a) variances (Category 3).
- The State should establish consistent internal review procedures for draft permits to ensure that permit requirements are consistent with fact sheet justification (Category 3).

D. Monitoring and Reporting

Monitoring and reporting requirements in the permits reviewed were consistent with federal requirements. Therefore, no action is required.

E. Special and Standard Conditions

The standard conditions reviewed were generally consistent with federal requirements and the special conditions appeared to be appropriate and reasonably documented. Proposed Action Items to help the State strengthen their NPDES permit program include the following:

- The State should incorporate all of the federal standard conditions in the State's standard conditions document (Category 1).

F. Administrative Process (including public notice)

The permits reviewed appeared to be compliant with the administrative process requirements. Proposed Action Items to help the State strengthen their NPDES permit program include the following:

- The State should develop a standard naming convention for all documents that are uploaded to the Water Pollution Control database (Category 3).

G. Documentation (including fact sheet)

The fact sheets reviewed were of very good quality and the permit files were generally found to be complete. Proposed Action Items to help the State strengthen their NPDES permit program include the following:

- As indicated in other action items, the State should ensure, through revisions to the permit template or training, that permit writers clearly document in fact sheets the basis for RPA, limits, and compliance schedules, and how anti-backsliding and anti-degradation requirements are met (Category 2).

H. Core Topic Areas

Proposed Actions Items for core topic areas are provided below.

1. Nutrients

The permit review indicated nutrients limits and monitoring requirements in the permits reviewed were consistent with federal requirements. Therefore, no action is required.

2. Pesticide General Permit

No action is required, as the permit review indicated the PGP meets federal requirements.

3. Pretreatment

The permit review indicated permits have been conditioned properly with pretreatment language. Proposed Action Items to help the State strengthen their NPDES permit program include the following:

- The State should provide training or written guidance to permit writers to ensure fact sheets clearly document the justification for a pretreatment program and indicate when the program was approved by the State (Category 2).

4. Stormwater

The permit review indicated the stormwater permits meet federal requirements. Proposed Action Items to help the State strengthen their NPDES permit program include the following:

- The State should revise policies, guidance, and/or provide training for permit writers to ensure stormwater permits include:
    - More specific requirements for storm sewer system mapping including requirements for identifying location of outfalls, names and locations of all receiving waters associated with outfalls, system inlets and catch basins (Category 2).
    - Fact sheet documentation of all permit requirements, including how anti-degradation requirements are met (Category 2).

I. Special Focus Areas

Proposed Actions Items for special focus areas are provided below.

1. Reasonable Potential

- The State should revise policies, guidance, and/or provide training to permit writers regarding:

- How to set performance-based limits using limited effluent data (Category 2).
- How to incorporate non-detect data into RP analyses (Category 2).

- The State should revise its permit template to include documentation of the number of samples and dilution factor in the RPA table for each pollutant (Category 2).

2. Enforceability of Permits

No action is required.

3. Low Impact Development

Proposed Action Items to help the State strengthen their NPDES permit program include the following:

- The State should ensure through provision of guidance or training for permit writers that all MS4 permits incorporate specific LID performance standards (Category 2).

Appendix A: List of Reviewed Permits

NPDES No. HI0020877. City and County of Honolulu, Department of Environmental Services, Honouliuli Wastewater Treatment Plant. February 2014.

NPDES No. HI0110078. United States Marine Corps, Marine Corps Base Hawaii, Kaneohe Bay Water Reclamation Facility. April 2014.

NPDES No. HI0021113. County of Hawaii, Department of Environmental Management, Papaikou Wastewater Treatment Plant. June 2014.

NPDES No. HI0110230. United States Department of the Navy, Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility. December 2013.

NPDES No. HI0000019. Hawaiian Electric Company, Inc., Kahe Generating Station. October 2012.

NPDES No. HI0020630. University of Hawaii, Waikiki Aquarium. December 2013.

NPDES No. HI0021075. Ameron International Corporation, Ameron Hawaii Sand Island Facility. July 2013.

NPDES No. HI0020346. Association of Unit Owners, Yacht Harbor Towers. September 2013.

NPDES No. HIS000002. State of Hawaii Department of Transportation, Highways Division Municipal Separate Storm Sewer System. September 2013

NPDES No. HIG990002. (Hawaii Administrative Rules 11-55, Appendix M). NPDES General Permit Authorizing Point Source Discharges from the Application of Pesticides. August 2012.